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Personnel in the Princeton office are enjoying their association with ARCE and hope to be able to contribute to the smooth functioning of the corporation.

The Annual Meetings of Members, Board of Governors, and outgoing and incoming Executive Committees were held at the University of California, Berkeley, on November 21 and 22, 1969. Professor William M. Brinner and Dr. Leonard Lesko of the Department of Near Eastern Languages represented the host University.

A productive business meeting of members chaired by Dr. von Grunebaum was followed by a program of papers and a wine tasting party.

At the meetings in Berkeley the following officers were elected: (* also on Executive Committee) President, Gustave von Grunebaum*; Vice-President, George Hughes*; Secretary, Leon Poullada; Treasurer, L. Carl Brown; Assistant Treasurer, Princeton, Leon Poullada; Assistant Treasurer, Cairo, John Dorman.

Individuals elected to the Board of Governors are: Klaus Baer*, John D. Cooney, Donald Edgar, Richard Ettinghausen, Hans Goedicke, Nicholas Millet, Thomas Naff, Richard A. Parker, George T. Scanlon, William K. Simpson, Richard N. Verdery, John A. Wilson, Farhat Ziadeh.

Board members and the Research Supporting Institutions which they represent are: Aziz S. Atiya, University of Utah; John A. Badeau, Columbia Uni-

versity; Morroe Berger*, Princeton University; William M. Brinner*, University of California, Berkeley; Byrum E. Carter, Indiana University; Gustave von Grunebaum*, University of California, Los Angeles; Donald P. Hansen, New York University; George Hughes*, University of Chicago; D.W. Lockard*, Harvard University; Froelich Rainey, University of Pennsylvania; William D. Schorger*, University of Michigan; Ronald J. Williams*, University of Toronto.

Institutional members are: Boston Museum of Fine Arts, Brown University, McGill University, University of Texas and University of Washington.

Standing committees: *Fellowship and Grants Committee* — Morroe Berger, Chairman; Klaus Baer, D.W. Lockard, William D. Schorger, Ronald Williams. *Membership and Contributions Committee* — John C. Cooney, Donald Edgar, Richard A. Parker. *Publications Committee* — Klaus Baer, Hans Goedicke, George Krotkoff.

The ARCE Executive Committee met in Princeton on January 18, 1970. It was decided that in principle the Annual Meeting of the corporation should be held at a time as close as possible to the meeting of the Middle East Studies Association in order to permit members to attend both meetings if they so desire.

The site of the next Annual Meeting of ARCE will be Toronto with the University of Toronto acting as host.

Papers Presented at the 1969 Annual Meeting

Islamic Studies

Fr. Anawati

"Survey of New Orientation and Researches in Islamic Philosophy."

Egyptology

John B. Callender

"Bipartite and Tripartite Nominal Sentences in Coptic"

Jeffrey Cooper

"Aspects of a Paleography of Abnormal Hieratic"

Hans Goedicke

"An Egyptian Claim to Asia"

Jonas C. Greenfield

"Aramatic Letters from Hermopolis: A Progress Report"

Leonard H. Lesko

"The Field of Offerings in Egyptian Coffin Texts"

Miriam Lichtheim

"Remarks on Gerhard Fecht's Studies of Egyptian Metrics: A Discussion Paper"

Dieter Mueller

"A Curious Concept of Life in the Hereafter"

Submission to the Smithsonian for the 1970 grant is now complete.

NOTES FROM CAIRO

Progress reports have been submitted

Whose Research Topic Is

By

Kamel SL Abu Jaber

The Labor Movement in the Middle East

Jack A. Crabbs, Jr.

Modern Arabic Historiography

Fay Arrich Frick

Some (or Major) Types of Islamic Pottery Found at Fustat

Arthur Goldschmidt, Jr.

The Egyptian Nationalist Party

Peter Gran

Hasan al-Attar and Early Education

F. Robert Hunter

The Social Background and Political Careers of a Group of Cabinet Ministers in the time of Ali Mubarak

Laverne Kunke

A study of the Development of a Public Health Establishment in Egypt During the Reign of Muhammed Ali, 1825-1850

Howard D. Rowland

The Arab-Israeli Conflict as Reflected in Arabic Fictional Literature

From the Fellows come some words of wisdom and advice for those to follow. We hear from all that Egyptian officials are helpful and courteous; access is freely given to bona fide American scholars to the materials they need for their research. However, August and September are months of short hours and vacation and heads of offices, by whom permits are granted and with whom it may be wisest to communicate rather than their subordinates, are absent. Valuable is a direct introduction by the head of our office to the heads of Egyptian offices.

Fellows will be severely handicapped unless they learn (possibly at the American University in Cairo) the vernacular; the attempted use of either classical Arabic or English often frustrates all parties.

Daily life in Egypt can be trying, and a Nubian cook is invaluable.

BROAD OUTLINE OF ACTIVITY IN THE ANTIQUITIES SECTOR, 1968-1969

by DR. GAMAL MOKHTAR, *Under Secretary of State for Antiquities, Ministry of Culture*

The policy of the Department of Antiquities during 1968 and 1969 has been to continue its past policy of preserving the country's ancient heritage through restoration, of searching for the remains of that heritage which may still be buried, of presenting the archeological objects to the public either by improving the original site or in new and enlarged museums, and of publishing the results of archeological research to acquaint the world with the secrets of history. Meanwhile, the Department of Antiquities keeps itself informed on the latest scientific techniques as applied to archeology and relates the cultural heritage of the country to the promotion of tourism.

Restoration and Preservation of Monuments

The Department of Antiquities carries on projects of restoration and preservation of monuments located in every part of the country, for which it employs technicians who have had many years of experience. Such projects include the reinforcing of weakened structures, reconstruction according to the original plan of portions of monuments which have been destroyed, the removal of debris from ancient buildings and the preservation of historic monuments from erosion caused by salts, moisture and weathering.

Restoration and preservation in Egypt is of two types: (1) that carried on throughout the country as part of the Department's regular program and (2) large projects in specific areas which are carried out in collaboration with foreign organizations over a period of several years.

Of the first type, the Department of Antiquities is busily engaged in restoration projects at Sakkara, Giza and Luxor. The Temple of El-Redissia, on the

road from Edfu to Mersa Matruh, has been restored. The Department has restored many of the Islamic monuments in Cairo and has completed a major project to clean the monuments in preparation for the celebration of the millenary of the founding of Cairo. Some restoration projects, as for example the clearing of some tombs and the opening to the public of the Mycerinus Pyramid at Giza, have been accomplished primarily to accommodate the tourist trade. The Antiquities Department has opened a school for training young men and women in ancient Islamic Art, which will develop specialists in the field of restoration of Islamic monuments.

The best example of the second type is the restoration of the Temple of Karnak by an agreement reached, on the basis of a study begun in 1960, between the U.A.R. Government and the National Center of Research in France to create a Franco-Egyptian Center to collaborate in repairing the temples of Karnak and in landscaping the surrounding area, using the most modern scientific techniques. A similar three-year agreement was also reached with the Polish Government to collaborate on a study of the temples of Deir el Bahary as the first step in a project of restoration. During the current year two agreements will be signed with the French and Polish Governments, the first to be a cooperative effort to restore the Islamic houses in Cairo and Rosetta and the second to document and repair Islamic monuments in Cairo and to convert some of them into cultural centers.

Excavations

Although the Department of Antiquities gave priority last year to restoration, it continued with its excavations, for the land of Egypt still contains many ancient treasures, each of which adds a new page to the record of human achievement.

These excavations were carried on at a great number of important sites dating from both pharaonic and Graeco-Roman periods and led to historically and archeologically important discoveries including buildings, tombs, stores, baths, walls, columns, stelae, mummies, statues, coffins, amulets, scarabs, coins, vases, etc.

The landscaping of certain archeological sites led to the discovery of two inscribed tombs in the Giza area and some houses and baths bordering the Avenue of the Sphinxes at Luxor. The Antiquities Department also tested some areas previously thought to be of possible archeological interest. When these were found to be of no historical interest they were turned back to the Governorates.

At the same time the Department facilitated excavations carried out by universities and foreign institutions in every part of the Republic. Among these

el-Dabba in Sharkia Governorate; the Spanish expedition at Ihnasya El Medineh in Beni Suef; the Italian expeditions at Kom Madi in Fayoum, at El-Sheikh Ibada in Menia and north of Lake Karoun in Fayoum; the Belgian expedition at El Kab, near Edfu; the German expeditions at El Korna, west of Luxor, at Kobbet el Hawa in Aswan, on Elephantine Island in Aswan, and at Abu Mena in the Western Desert; the French expeditions at San el Hagar in Sharkia, Dendera in Qena, the Montu Temple at Karnak, el Kellia in Beheira, and Esna in the Aswan Governorate; and the American expeditions at Fustat, Hierakonpolis and Abydos. An American expedition continued its archeological survey of the prehistoric period in Upper Egypt, and Chicago House continued its epigraphic survey of the Temple of Khonsu in Karnak. Other excavations were carried out by British expeditions at Sakkara and Tel el Pharain, in the northwest Delta; by the Polish expeditions at Kom el Shokafa in Alexandria and at Tel Atreeb near Benha; and by the Swiss expedition at Kellia in the Beheira Governorate. The Department also granted an excavation concession to Cairo University to dig at Kom Oshim in Fayoum.

Museums

Although the Department of Antiquities has plans for the construction of international museums at Cairo and Alexandria, it took steps during the last year to improve the exhibitions and the services of the Cairo Museum and to renovate the ceilings of some of the halls in the Alexandria Museum. The Department further proceeded to execute the recommendations contained in a report by UNESCO experts intended to improve the facilities of the museums.

The Department has given high priority to the completion of the museum to house the Cheops Boat at Giza, constructed on the same spot where the boat was originally discovered. The Department has almost completed the museum at Luxor and is already selecting the objects to be exhibited there.

The Antiquities Department encourages exhibitions of its archeological objects both within the country and abroad. It is now preparing for some pharaonic pieces from the Cairo Museum to be exhibited at the Boston Museum of Fine Arts and at the Metropolitan Museum in New York in 1970, on the occasions of the hundredth anniversary of their founding. Revenues from these exhibitions will be used for the salvage of the Philae temples.

Objects from the Cairo Museum were loaned to the exhibition at Mexico on the occasion of the 1968 Olympics, and the Department of Antiquities helped in arranging the exhibition of Islamic art at Cairo on the occasion of the millenary. Plans are now

sition in Osaka, Japan, in 1970 and to an African exposition to be held in Addis Ababa. The U.A.R. authorities are also considering the possibility of exchanging some archeological objects with Iraq, India and other countries as a first step in creating a general museum to illustrate the successive cultures which have influenced or which have been influenced by Egypt.

Linking the Past with the Present

The Ministry of Culture has made a conscious effort to relate the monuments of the past to the culture of today.

Some years ago the sound-and-light projects at the Pyramids and at the Cairo Citadel were completed. These are a successful effort to exhibit the monuments to advantage through a technique of combining sight, speech and music. The Antiquities Department has now started work on a new kind of sound-and-light at Karnak, whereby image, sound, music and light will accompany the visitors as they move through the temples of Karnak.

To encourage the presentation of theatrical productions in historical settings, a platform was erected at the base of the Sphinx where several performances by international troupes have been scheduled. Hopefully the open air theater will attract the most famous theatrical companies in the world to this site, filled with splendour and magnitude, where the actors' voices will ring out, blending with the voice of the ages, exciting, and sharpening the imagination. At Alexandria the Roman theater was being prepared, with the help of the Polish expedition which had done much of the excavating, for the presentation of classical plays. The Ministry of Culture proceeded with plans to produce an ancient play at Sakkara, blending the forms of the ancient Egyptian drama (monologue, acting, ballet, etc.) on the one hand with the most modern techniques of the theater (decoration, lighting, make-up, etc.) on the other. It is hoped that the play will be a great success and will be an inducement for producing other plays based on historical and early religious events.

The Department converted some historical monuments to cultural and touristic uses without, however, damaging their architectural features. Restoration was begun on the El Mesafekhkhana building and on the Beit el Sekhimi in Cairo with the intention of converting them into cultural centers and clubs.

The Antiquities Department encouraged its Center to produce casts and models of the objects in the Museum which are available for purchase at reasonable prices by everyone. The Center also began to construct models of ancient Islamic monuments and to mold casts from objects from other than the Cairo Museum. The Center created two new departments,

one for bronze and another for porcelain. It participated in several cultural, historical and technical exhibitions both at home and abroad.

Use of Scientific and Technological Techniques

The Department of Antiquities continued to maintain and expand its chemical laboratory by building an annex equipped with new scientific apparatus including an X-ray unit and a unit to test for carbon 14. The laboratory at present undertakes the treating, analyzing, repairing and restoring of monuments and objects, particularly those kept in the museums; it also conducts important scientific research.

The Department proceeded with plans to establish an institution for the restoration of monuments where students would train both theoretically and scientifically in the repair and treatment of monuments, using the most modern methods and techniques.

The Department encouraged those projects proposed by foreign institutions which utilized the application of modern scientific and technological techniques. These projects included the use of cosmic rays to photograph the interior of the Second Pyramid of Giza, photographing the stones of Akhnaten's palace at Luxor and the use of a computer to sort them, and x-raying the teeth of the mummies in the Cairo Museum.

Finally, the Department of Antiquities made every effort to publish the results of its excavations and its research and produced guidebooks in Arabic, English and French for the Egyptian, Coptic and Graeco-Roman Museums.

The Center of Documentation on Ancient Egypt and the Board to Safeguard the Monuments in Nubia have continued their important work with their customary energy and enthusiasm.

THE PERILS AND PLEASURES OF A "MODERN EGYPTOLOGIST"

By DR. ARTHUR GOLDSCHMIDT, JR.,

Assistant Professor of History,

Pennsylvania State University, ARCE Fellow

There is nothing more disconcerting to a specialist in twentieth century Egyptian history than a confrontation with a real live Egyptologist. One's own credentials as an historian fade like blue curtains in the sun of a Cairo summer as the Egyptologist extols the rewards of unearthing the seemingly inexhaustible store of Pharaonic treasure. The fall of a Wafdist ministry is as the blinking of an eye to the millennial dynasties of ancient Egypt. Who cares about the assassination of a British general when an Egyptologist is translating a column of owls and ibises into a hymn to the sun, or even the Pharaoh's

laundry list? Why don't historians leave the twentieth century to the journalists, the political scientists, and the anthropologists?

This question was first put to me seven years ago when I was beginning my dissertation research in Cairo on the Egyptian Nationalist Party. My friend, who was editing a Mamluk manuscript, maintained that no bona fide historian should go beyond the time of Napoleon. I could not fully justify my position then, but a lot of water has since flowed under the Kasr el-Nil Bridge, and I might do better now. Many ARCE members believe that Pharaonic, Hellenistic, or Islamic Egypt are civilizations worthy of study for their own sake. I agree. As a teacher and writer of history, I must put this idea across to my students and readers. Present day Egyptian society is less integrated and coherent than it was before the European impact; it is subject to greater extraneous pressures and internal strains, and it is harder to describe synoptically.

On the other hand, there are far more people who want to know something about modern Egypt. The historian, applying his own techniques of research to the nineteenth and twentieth centuries and drawing on the other social science and humanistic disciplines, can explain how Egypt got to where she is today. It is always a little hard to find a balance between pure and applied research, between the esoteric and the "relevant" (one of the most over-used words of the late 1960s) aspects of a subject. The modern historian may exaggerate the practical side of his work, but he should not have to apologize for its popularity. Egypt exists in today's world, and there are and will always be students and laymen who will seek the key to her present in her recent past.

The "modern Egyptologist" gets certain rewards from his work that his ancient and medieval colleagues never experience. There are long summer evenings on a balcony in Heliopolis with the brother of a long-departed nationalist, Ramadan *iftars* with an aging but still articulate lawyer, winter afternoons at the bookstalls along the Ezbekieh walls, and memorial services for deceased leaders in which tarbooshed octogenarians recount their salad years behind the barricades. Instead of tablets extracted from the desert sands, there are collections of letters and unpublished memoirs in the possession of relatives, who are usually delighted to make them available to trustworthy American scholars. An ailing *shaykh*, who has long since bored all his offspring to tears with his embroidered accounts of his youthful exploits, revives in the glow of an admiring young American interviewer who says that he has come five thousand miles to hear those tales. There are the yellowing newspapers in Dar al-Kutub, with their slashing attacks on one another, scandalous political cartoons, and advertisements for quack

remedies and cosmetics. There are also scores of small museums, archives, and libraries, each useful for a particular specialty. There is the shop talk within the graduate student community, as each researcher tries to help (and incidentally to impress) his colleagues with his hard-won expertise. These are truly the pioneers of the late twentieth century.

But what hope is there for that would-be pioneer, the graduate student who fears that there is no subject left in modern Egyptian history for him to choose as his thesis topic? For months before he submits his application for an ARCE grant, he worries his professors and rifles the current research reports, trying to find an original idea. If he has one, he divulges it to no one, not even to his best friend. At first I even hesitated to tell my wife. The history of modern Egypt is no longer virgin soil, and some fields have been plowed so often that only a genius or a fool would venture upon them. We do not desperately need another thesis on Anglo-Egyptian relations under Cromer, the life and writings of Lutfi al-Sayyid, or the Manarist school of Islamic modernism. Even so, there is probably no published monograph and no thesis in our field that could not be improved upon by painstaking research and bold conceptualization.

Allow me, then, to suggest some areas and subject for research in modern Egyptian history that I think may prove fruitful, or at least evocative. Of course, I apologize in advance to anyone who may already have chosen one of these topics. I am writing in Cairo, without our usual sources of information such as the lists of theses currently in progress compiled by the AHA and MESA. Please check before you choose.

Not surprisingly, political and diplomatic history are Egypt's most worked-over areas. Scholars have already picked off the best known political parties and movements. There remain, however, some interesting quasi-political groups, such as the Higher Schools Club (Nadi al-Madaris al-Ulya) and the Young Men's Muslim Association (Jam'iyyat al-Shubban al-Muslimin). No one has studied the revolutionary secret societies attached to the Wafd, such as the "Black Hand." Less controversial topics would include the various representative assemblies of the nineteenth and early twentieth centuries (I would particularly like to see someone write a thesis on the Legislative Assembly of 1913-14), the development of provincial, local, and municipal government, and a study of Egypt's various non-governmental politicizing agencies. In the area of foreign relations, work should be done on Egypt's relations with the Ottoman Empire after 1841, with France after 1882, with Italy during the 1920s and '30s, and with various independent Muslim countries in modern times. The ethnic minorities in Egypt, such as the Syrians, Armenians, Greeks, and Italians, now war-

rant historical study by persons knowing the relevant languages. So do the religious minorities, such as the Catholics and the Greek Orthodox. Numerous questions about the Copts still need to be answered; a study of their role in Egyptian nationalism would be especially valuable.

Biographies are manageable subjects for doctoral candidates, and there is much untilled ground here. Even Sa'd Zaghlul does not yet have a published biography in English. Nearly every member of the Muhammed 'Ali dynasty could be restudied to advantage, but especially some of the influential "outs" like Mustafa Fadil and his daughter Nazli, Halim because of his relation to the 'Urabists, and 'Umar Tusun. There should be biographical studies of Isma'il Siddiq (the "Mufattish"), Mustafa Riyad ("Riaz Pasha"), Butros Ghali, Abd al-Aziz Fahmi, Telcat Harb, Mustafa al-Maraghi, and many others. There are well-known families, such as Abaza, 'Alluba, Mahir, and Sultan, which would yield interesting collective biographies. One reference work badly needed in our field is a biographical dictionary for modern Egypt comparable to the *Dictionary of American Biography*. If such a project comes into existence, any graduate student doing a biography is likely incidentally to publish his first article.

Economic history, except for agriculture, still has great possibilities. We need to study the development of Egyptian entrepreneurship, perhaps through the history of native-owned firms for textile spinning and weaving, sugar refining, tanning, or the manufacture of glass and cement. The construction industry has not been studied. Egyptian finance was a major issue in 1882, but there is still room for work on the International Debt Commission. Both national and private banks should be studied. Several thesis topics could be worked up out of the Egyptian railroads, and a related study could be made of river and canal transport. We need to know more about the relatively early development of public utilities in Cairo and Alexandria and their economic and social consequences. Egypt was one of the first countries to be systematically developed for tourism (it was Egypt that made Cook's famous) but who has studied this engaging subject? There should also be a history of Egypt's navy and merchant marine before the British occupation.

Finally, I would like to mention a few of the many untouched topics in Egypt's social and intellectual history. There are the voluntary social service organizations, such as the Islamic Benevolent Society (al-Jam'iyya al-Khayriyya al-Islamiyya) and the Red Crescent. Someone should study the reform of the Muslim pious foundations, or *awqaf*, and their Coptic equivalents. Foreign missionaries have played a largely unsung role in the cultural awakening of modern Egypt; the American Presbyterians, the Freres, and the Jesuits ought to be studied.

The history of Egyptian education has great possibilities. There are the religious *kuttabs* and such secular private schools as the one founded by Mustafa Kamil. Someone should study the expansion and reform of al-Azhar under Isma'il and the concurrent establishment of Dar al-'Ulum. Work needs to be done on vocational and technical education, and on all the major professional schools (medicine, law, engineering, agriculture, and teaching), not to mention the Egyptian University (now the University of Cairo). Related subjects include libraries (especially Dar al-Kutub) and scholarly associations such as the Geographical Society and l'Institut d'Egypte. Women's education ought to receive special attention.

As for literature, there have been few studies in English of Egypt's best-known poets, Ahmed Shawqi, Hafiz Ibrahim, and Khalil Mutran. Someone should work on the development of the theater, cinema, and radio and television drama. Both music (e.g. Sayyid Darwish and 'Abduh Hamuli) and the visual arts (e.g. Mahmud Mukhtar) can still be done. A large-scale study must some day be done on the history of Arabic journalism in Egypt, but in the meantime there are plenty of manageable subjects for thesis research. We need careful studies of widely read periodicals, such as *al-Waqa'iq al-Misriyya*, *al-Abram*, *al-Muqattam*, *al-Mu'ayyad*, *al-Liwa*, *al-Balagh*, *al-Misri*, and *al-Hilal*. Someone should examine the relationship between the Egyptian press and the feminist movement. There are also some broader problems in Arabic journalism: why did Syrians play such a major role in its earliest phase, why did newspapers and magazines become the main vehicles for literary expression and innovations, how did the periodical press affect people's ideas and life-styles?

Contrary to the rumors cultivated abroad about the restrictive intellectual climate in the United Arab Republic, it is untrue to state that Americans can no longer do research there. It would, of course, be better to avoid very current topics, or studies of Farouk's favorites, the Palestine conflict, the Army, or anything that might harm state security. Other modern topics can often cause misunderstandings if they are stated in a controversial manner. I found, for example, that it was preferable to say that I was writing on Mustafa Kamil and Muhammed Farid, rather than the Nationalist Party. In the final analysis, tact, patience, cultural empathy, and good digestion are the best assets a modern Egyptologist can have, regardless of his subject, and surely all long-term resident foreigners in this country would agree. For the serious apprentice scholar of modern Egypt, the local watchword remains "Ahlan wa sahan."

DENTISTRY IN ANCIENT EGYPT

By SHAKER KHALEEL, D.D.S.

When I mention that dentistry was practised

in Pharaonic times as early as 2700 B.C., my comment is usually met with an element of surprise. This seems strange since the world acknowledges the fact that Ancient Egypt had excelled in certain fields even when compared with modern standards. Pharaonic architecture is an established, recognized style, as are Pharaonic sculpture and painting. Military history records that King Thutmose III was the first military commander to apply the tactic of having the main central body of the army retreat as the two hidden flanks closed upon the advancing enemy, a tactic later used by Napoleon. Thutmose III was called the Napoleon of Egypt although it would have been more appropriate to call Napoleon the Thutmose of France. Music throughout the Middle East, as well as that of Persia, Turkey and Greece, has its origins in Pharaonic music. Egyptologist Herman Junker states that King Solomon's "Proverbs" are taken from the teachings of King Akhnaten of the Eighteenth Dynasty. Consequently we should not be surprised to learn that dentistry was also practised by the Pharaohs.

The first historical references to dentistry were recorded on six wooden tablets now in the National Egyptian Museum describing the first dentist known in history, Hesi Re, probably the personal dentist of King Zoser, founder of the Third Dynasty, 2700 B.C. Herodotus writes that Egypt is the home of specialists, and Eber's papyrus states that there were specialists in diseases of the eyes, the skin, women, bones and, as he puts it, "naturally teeth."

Elliot Smith writes that the custom of embalming was the first step in the practise of medicine. This familiarized the embalmers with the structure of the human body and taught them the properties of mineral and vegetable drugs used in the practise of their profession which later led to the inclusion of these drugs in the pharmacopoeia. Knowledge obtained through the practise of embalming helped to shape the theory of disease and methods of cure.

Egyptian invasions and trafficking with neighboring and distant countries led the local people to adopt Egyptian practises, sciences and arts. In later times the populations of these colonies imitated the Egyptians and in turn exploited other countries still farther away and passed on Egyptian customs, sciences and arts stage by stage to more distant lands. In this way countries both near and far received their first knowledge of dentistry.

Herman Junker, describing his excavations at Giza, states that he found the names and tablets of court dentists, among whom was Hesi Re, "Chief of Toothists and physicians," mentioned above. The tablets contained the names of six other court dentists who practised during the Fourth, Fifth, Sixth and Twenty-Sixth Dynasties. Their names were made a matter of record because these were court dentists,

while the ordinary dentists were unrecorded and consequently remain unknown to us.

From these tablets and from the Edwin Smith papyrus it appears that dentistry was a highly specialized profession which comprised the following categories: (1) Toothist: One who treated teeth; (2) Tooth Drawer: The present-day exodontist; (3) Dental and Oral Surgeon: As will be discussed later in the Edwin Smith surgical papyrus; and (4) Tooth Worker: Known today as the laboratory technician.

Archeologists agree that the ordinary form of dental caries was exceedingly rare in pre-dynastic and proto-dynastic times when people ate coarse fibrous food and raw vegetables and continued so until before the pyramid age in the Third Dynasty. However, dental caries became more common in later periods as life became more luxurious. Elliot Smith notes that "dental caries and alveolar abscesses were at least as common as they are in modern Europe today." They prevailed among the people of means who lived on a plentiful diet, although much less among poorer people who lived on a simple, coarse diet.

Weinberger states that one can repeatedly find assertions that ancient Egyptians filled teeth with gold and also used some sort of dental prosthesis. An Egyptologist friend of ours told us he had seen a tooth with a gold filling which had been found in a cemetery near the Giza pyramids.

Records indicate that dentists prescribed certain materials with astringent properties for bleeding gums. For excessive hemorrhage raw meat was applied to the wound or occasionally the area was burned, the equivalent of present day electric cauterization. Junker discovered in a cemetery dating from about 2500 B.C. an example of tightening loose teeth, where a loose third molar was fastened to its neighboring second molar by a gold wire. Eber's papyrus describes remedies for loose teeth, toothache and inflammation, as well as for disturbances and complications of teething in children.

The oldest surgical treatise known in history is the "Edwin Smith Surgical Papyrus". It was written about the year 1550 B.C., but the original manuscript is estimated to date back to about the year 3000 B.C. This papyrus describes 48 surgical cases, some of which are within the field of dentistry. Prof. Breasted deciphered the document and his excellent translation acquired universal fame. This most treasured manuscript is now in the possession of the Academy of Medicine in New York. I shall give the entire texts of the two cases to illustrate how systematic the author was and how his methods compare with those used today.

Case 17. Compound comminuted fracture of the bone in the region of the maxilla and the zygoma.

Title: "Instructions concerning a smash on his cheek."

Examination: "If thou examinest a man having a smash on his cheek, thou shouldst place thy hand on his cheek at the point of that smash. Should it crepitate under thy fingers while he discharges blood from his nostril (and) from his ear on the side of him having that injury (and) at the same time he discharges blood from his mouth while it is painful when he opens his mouth because of it."

Diagnosis: "Thou shouldst say concerning him having a smash on his cheek while he discharges blood from his nostril, from his ear (and) from his mouth (and) he is speechless, an ailment not to be treated." According to the best of his medical knowledge the author believed that such a case was hopeless but as a conscientious medical man he made a great effort to treat his patient and give him every possible chance:

Treatment: "Thou shouldst bind it with fresh meat the first day. His relief is sitting until its swelling is reduced. Thou shouldst treat it afterwards with grease, honey (and) lint every day until he recovers." Probably the author meant to use honey as a hypertonic sugar solution, while grease would prevent the dressing from sticking to the wound.

Case 25. A dislocation of the mandible.

Title: "Instructions concerning a dislocation in the mandible."

Examination: "If thou examinest a man having a dislocation in his mandible, shouldst thou find his mouth open (and) his mouth cannot close for him, then shouldst put thy thumbs upon the ends of the two rami of the mandible, in the inside of his mouth (and) thy two claws (meaning two groups of fingers) under his chin (and) thou shouldst cause them to fall back so that they rest in their places."

This is the exact method of treatment used today.

Treatment: "Thou shouldst bind it with 'ymrw' and honey every day until he recovers."

Prof. Kamel Hussein, one of our leading orthopedic surgeons, says "There never was and never will be other method for reducing this dislocation."

Studying the Edwin Smith surgical papyrus throughout the 48 cases, one sees that the author starts with what could be described as the title, next gives a detailed clinical examination and finally discusses the treatment. In certain cases which the author calls hopeless and consequently not to be treated, he nevertheless out of conscientiousness and

high esteem for human life insists on making an effort to cure the patient. If the surgeon's medical knowledge has been overtaken through the passing of 3500 years, one thing remains unchanged and as true today as it was then, namely, the high standard of his medical ethics.

INTERNATIONAL SYMPOSIUM ON THE ARCHITECTURE OF CAIRO

by A PARTICIPANT

Under the auspices of the Ministry of Culture, a "Round Table" on the planning of the future of Cairo, to which architects, town-planners, sociologists, and historians were invited, was held in Cairo from September 20 to 30.

The purposes of this colloquium were: (1) to study the effect of the culture and civilization of the city on its architecture and its plan; (2) to compare this city with other cities of the Islamic world and these, in turn, with Western cities; (3) to discuss, place in context and define certain concepts such as "contemporaneity," "internationalism", "functionalism", "estheticism", and "humanism" currently used in town planning, and how they apply to Cairo; and (4) to study the influence of modern technology on systems of planning now used in the West, and the possible effects that use of these might have on the city. Actually, the participants restricted themselves to (1) and (4). The most lively interest centered around the discussion of the Cairo of the future, which must take into account the problems of the city today.

The Chairman of the colloquium was Professor Hassan Fathy, architect of Gourni who was awarded the Gold Medal for the Arts in 1969. Of the thirty invited to participate in the colloquium, eighteen actually attended. Unfortunately none of the four professors from the United States (Dr. Jaqueline Tarwitt, Dr. Phillip Johnson, Dr. Lewis Mumford and Dr. J.M. Fitch) were able to attend, but the American University in Cairo was represented by Prof. J.A. Williams, Director of the Center for Arabic Studies; Dr. Susan Staffa, Department of Sociology; and Dr. Christal Kessler, Islamic Art and Architecture. Other foreign participants included Prof. Jacques Berque, of the College de France, Prof. Pierre Marthelot, of the Ecole Pratique des Hautes Etudes, and Dr. Andre Raymond, Director of the French Institute of Damascus, all of France; Senior Architect Shri Jeet Malhotra from India; Dr. W. Kubiak from Poland; and Prof. El Tayyib from the Sudan.

The Egyptian participants included the following high-level government officials: Mr. Ezzedine Farag, Under Secretary of State in the Ministry of Housing; Dr. Mustapha Hamza, Under Secretary in the Ministry of Housing; Dr. Mustapha Hamza, Under Sec-

retary in the Ministry of Social Affairs; and Dr. Muhsin Idriss, Director of the Greater Cairo Planning Commission; as well as the following university professors: Prof. M.Z. Shafei, of the Department of Islamic Art and Architecture at Cairo University; Prof. Ramses Wissa Wassef, sometime professor of the Faculty of Fine Arts at Cairo University; Dr. Mustapha Niazi, former professor of city planning at Cairo University; Dr. Haifa Shanawani, Director of the Family Planning Association; and Dr. Abdel Moneim Haykal, Higher Council for Arts, Letters and Social Sciences.

Representatives from the Greater Cairo Planning Commission displayed a clear grasp of the problems the city will face. By the year 2000 the population will have grown to 14,000,000 if unchecked, and even with planning will perhaps double or triple. (The most recent census figure, 1966, revealed the population to be 4,220,000.) Even today the city's infrastructure is strained to its limits. Although the problems of population and galloping urbanism received careful consideration, solutions were not evident.

The planning Commission arranged an impressive exhibition of maps and charts to illustrate their statistics, projections and proposals for new construction. The Commission was very much aware of the desirability of conserving the historical monuments of the medieval city, and indeed the delegates to the colloquium seemed to have very little new to contribute to the exposition given by the Commission. However, the delegates did raise objections to a plan to cut a highway through the Old City from Bab al Wazir to Midan Bab al Khalq.

In principle, every effort is being made to prevent the city from over-expansion. Four satellite cities are planned to draw off the population, and efforts are under way to decentralize industry and to reduce the economic attractions for a growing population. That the problem has already reached crisis proportions is clear and no one doubts the sincerity or the competence of the authorities. But vast sums are needed to save Cairo, and with so much of the budget of this developing country being committed elsewhere, it is not clear what the source of those funds will be.

THE CENTER'S GUEST BOOK

The first visitors to the Center during October were Dr. and Mrs. Charles Nims, en route to a new season at Chicago House in Luxor, soon to be followed by other members of the epigraphic survey team which included such veterans of former seasons as David Larkin, Carl De Vries, Grace Huxtable, and Martyn Lack. Mr. Antoine Khater of the Coptic Archeological Society and Dr. Wosciech Kolataj of the Polish Institute, currently a member of the expedition in Alexandria, called. Dr. Aziz S. Atiya of the University of Utah, Salt Lake City,

member of the ARCE Board of Governors, visited the office with Mrs. Atiya. Dr. Manfred Bietak of the Austrian Mission came to inform us that, since he was unable to return to his concession at Tel el Deba'a in the Delta, he was leaving to work on an alternate concession in Luxor. Dr. Sergio Donadoni, noted Italian Egyptologist from the University of Rome accompanied by his colleague Dr. Sergio Bostico from the Papyrological Institute of Florence, was in Cairo to obtain a new archeological concession in Luxor, since they were unable to return this year to their concessions in Middle Egypt and Fayoum. Dr. Gus Van Beek, archeologist from the Smithsonian Institution, spent several days in Egypt during which he visited the Fustat excavations and Chicago House. Lois Drewer, ARCE Fellow from the University of Michigan, checked in at the end of the month. Other visitors to the Center during October included Mr. Don Ryan of Phillips Petroleum Company in Alexandria, Mr. George Meloy, Principal of the Schutz School, Dr. Halim Doss, a distinguished Egyptian physician, Dr. Pablo Dianne of the University of Rome, Dr. Zaki Sa'ad, eminent Egyptian Egyptologist, Mr. Ray Liden, CASA student from U.C.L.A., and Dr. Austin Uring from Kassel, Germany.

The first visitor to the Center in November was Mr. Peter Gran, sometime resident of Egypt but recent recipient of an A.R.C.E. award. Bishop Samuel of the Coptic Orthodox Church, accompanied by Abuna Nakhla Michel, called to invite us to a reception for a group of visiting newsmen from the States. Dr. George Hughes, Director of Chicago's Oriental Institute and Vice President of the A.R.C.E., visited the office with Mrs. Hughes on their way to and from Chicago House in Luxor. Alan Heil with VOA, formerly stationed in Cairo and now in Athens, stopped by the office. Dr. Hermen de Meulenaere, Director of the Belgian expedition at El Kab, called en route to Luxor to find an alternate site within those areas still open for archeological excavations. Toward the end of the month Mr. Jack Crabbs, ARCE Fellow from the University of Chicago, arrived in Cairo with his wife. Other visitors at the Center during November included Dr. Farida Makkar, Dr. Christal Kessler, and Dean Frank Blanning, all of the American University, Mr. Dunning L. Wilson of the Near Eastern Center at U.C.L.A., and the Nelson Chapman family and Dr. Grace Welles, from Orient, New York.

During December Dr. and Mrs. WJ. Dixon of U.C.L.A., in Cairo for the dedication of the new computer center at the University of Cairo, called. Dr. Carolyn Killean, former A.R.C.E. Fellow, now at the University of Chicago, and Dr. William Brinner, of the University of California, Berkeley, and member of the ARCE Board of Governors, both on a team inspecting the CASA program, visited the

Center. Other December visitors included Miss Sylvia Crone of the Smithsonian, Dr. Bernard Weiss of the A.U.C., and Dr. James Harris of the University of Michigan, in Cairo to investigate the possibility of continuing his cephalometric survey of the Nubian schoolchildren.

AMERICAN RESEARCH CENTER IN EGYPT, INC.

Minutes of Annual Meeting of Members
Berkeley, California — November 22, 1969

The Annual Meeting of Members of the American Research Center in Egypt, Inc. was held at 9:00 o'clock A.M. on November 22, 1969 at Room 155 Kroeber Hall, University of California, Berkeley, California.

President Gustave von Grunebaum was in the chair, and declared the meeting open for business.

Mr. Harold Hurst, Secretary, determined that sixteen individual members were present and had so registered, and that proxies for the meeting had been sent in to Drs. von Grunebaum and William Brinner by eighty two other members. The said proxies are attached to the original copy of these minutes kept in the ARCE files. Mr. Hurst then stated that there were sufficient members present in person or by proxy to constitute a quorum.

The chair extended its thanks to host Professors William Brinner and Leonard Lesko for the efforts expended by them to arrange for the meeting in Berkeley.

Dr. von Grunebaum then reviewed some of the matters with which ARCE had been concerned since the last annual meeting of members:

1. Curtailment of archaeological activities in Egypt.
2. Progress made in Arabic Literature, the completion of Vol. I including printing and distribution, except for the American edition to be ready in 1970.
3. The move of the principal office of the ARCE to Princeton, New Jersey and appointment of Leon Poullada as Director of that office.
4. The award of ten fellowship grants for study in Egypt, and that generally no trouble had been experienced in Egypt by fellows.
5. The very successful trip to the United States by Dr. Gamal Mohktar (now Under Secretary of Culture in Egypt) under ARCE auspices.
6. The coming out of Vol. VII of the Journal of the ARCE in 1970, with special thanks to its editor, Dr. Alan Schulman, who is now in Tel Aviv; the profile of Vol. VIII has already been drawn by Dr. Schulman who will, after that volume, relinquish the editorship to Dr. Klaus Baer of the University of Chicago who has agreed to accept the editorship, for which the ARCE is very grateful.

Dr. von Grunebaum then stated that ARCE had had a net increase of six members over the past year, making (249) Individual Members at this time; (19) Members had withdrawn during the year, (6) Members were deceased, and (31) New Members had been added to the membership rolls. Attached hereto as appendices A, B and C are lists of the said members withdrawn, added and deceased.

The chair then read the names of deceased members and made special mention of William Stevenson Smith, Edward W. Forbes and C. Bradford Welles, and stated that Volume VII of the Journal has been dedicated to the memory of William Stevenson Smith.

The chair welcomed new members and the addition

of McGill University and Brown University to the list of Institutional Members.

Then followed a report by Mr. John Dorman, Director of the Cairo office of ARCE concerning the activities of the Cairo office and the current situation in Egypt:

Mr. Dorman discussed briefly the fellowship program, orientation activities and seminars, help extended to Americans not associated directly with ARCE with their work in Egypt, the use of ARCE by members of the Egyptian Government instead of using the U.S. Interests Section, and publication of the Newsletter. Mr. Dorman also pointed out the added financial responsibilities assumed by the Cairo office, including maintenance of all records in Cairo, preparation of all reports in Cairo, and the hiring of local independent accountants to audit the books in Cairo. Mr. Dorman then stated that some funds granted by the Smithsonian Institution have been spent on library facilities. Insofar as the present situation in Cairo is concerned, Mr. Dorman said, there is cause for alarm in the anti-U.S. propaganda campaign started about two months ago and still continuing; that he believes there will be no difficulties in the way of going ahead with fellowship programs; that, except for perhaps granting concessions in the Cairo and Theban areas there will probably be no relaxation of present restrictions on archaeological activity; that the Egyptians are going ahead with sending a cultural exhibit to the U.S.; and that the ministry of Culture and the Department of Antiquities continue to be cooperative.

The chair then announced that Elizabeth Riefstahl had resigned her editorship of the Newsletter for reasons of health and age, that the October issue had been edited by Mrs. Martha B. Smith and that Mrs. Lily Brown, administrative assistant to Mr. Poullada, would edit future issues.

Dr. von Grunebaum then requested Mr. Donald Edgar, Chairman of the By-Laws Committee, to make his report. Mr. Edgar reviewed proposed changes in the By-Laws, all as set out in the Text appended to the original copy of these minutes in the ARCE files, except that Article II Section (1) should be further amended by adding to the proposed amendment the words "A Resident Agent shall be maintained in the Commonwealth of Massachusetts."

A discussion of the proposed by-laws and objections thereto, both as to substance and lack of notice, followed, participated in by Mr. Harold Hurst, Dr. Klaus Baer, Dr. William K. Simpson, Dr. von Grunebaum, Dr. Thomas Naff, Dr. George Scanlon and Dr. Richard Verdery.

Upon motion made by Dr. William K. Simpson and seconded by Mr. John Dorman, it was VOTED:

That the by-law changes as proposed by the Committee on By-Laws be hereby accepted and put into effect, subject to a supplemental sentence to Article II Section (1) to the effect that "A Resident Agent shall be maintained in the Commonwealth of Massachusetts." Of those members present (13) voted in the affirmative, (3) in the negative, and Dr. von Grunebaum cast (82) proxy votes in the affirmative.

Dr. von Grunebaum then stated to the meeting that any member who wishes, may submit in writing any further proposals for alteration of the By-Laws.

The chair then requested a report from Professor Frederick Cox, Chairman of the Nominations Committee. Professor Cox stated that the following incumbent members of the Board of Governors had been nominated for

re-election as individual members to the Board of Governors:

Dr. Klaus Baer	Dr. Richard E. Parker
Mr. Donald Edgar	Dr. George Scanlon
Dr. Richard Ettinghausen	Dr. Richard Verdery
Dr. John D. Cooney	Dr. John A. Wilson
Dr. Thomas Naff	

Upon motion made by Mr. Leon B. Poullada and duly seconded by Mr. John Dorman, it was, by acclamation and without any dissenting votes, VOTED:

To re-elect the following present members of the Board of Governors to a new term on the said Board:

Dr. Klaus Baer	Dr. Richard E. Parker
Mr. Donald Edgar	Dr. George Scanlon
Dr. Richard Ettinghausen	Dr. Richard Verdery
Dr. John D. Cooney	Dr. John Wilson
Dr. Thomas Naff	

Professor Cox read the Nominating Committee's proposal of the following individual members for election to the Board of Governors:

Dr. Farhat Ziadeh	Dr. Hans Goedicke
Dr. William K. Simpson	Dr. Nicholas Millet

Upon motion made by Dr. George Scanlon and duly seconded by Mr. John Dorman, it was unanimously VOTED:

To elect to membership on the Board of Governors the following:

Dr. Farhat Ziadeh	Dr. Hans Goedicke
Dr. William K. Simpson	Dr. Nicholas Millet

Professor Cox then presented the name of Mr. Leon B. Poullada as the selection of the Nominating Committee for the office of Secretary.

Upon motion made by Mr. John Dorman and duly seconded it was unanimously

VOTED: That Mr. Leon B. Poullada be elected to the office of Secretary of the corporation.

Professor Cox then presented the name of Dr. L. Carl Brown as the selection of the Nominating Committee for the office of Treasurer.

Upon motion made by Mr. John Dorman and duly seconded, it was unanimously

VOTED: To elect Dr. L. Carl Brown to the office of Treasurer of the corporation.

The chair then announced that there would be a meeting of the newly-elected Board of Governors at 12:15 o'clock P.M. at the Faculty Club.

There being no further business to come before the meeting,

Upon motion made by Dr. Klaus Baer and duly seconded by Mr. Leon B. Poullada, it was unanimously

VOTED: To adjourn.

Adjourned at 11:00 o'clock A.M.

A true record.

ATTEST:

HAROLD HURST
Secretary

APPENDIX A

CANCELLED MEMBERS SINCE NOVEMBER 1968

Brooks, Susan
Day, Clarence
Dynes, Russell
Feller, W. K.
Green, Julia
Harland, J. Penrose
Harrison, V. R.
Hopkins, Clark
Henderson, Mary
Joaquin, Yuill
Merrill, Frederick
Morrissey, Virginia
Peabody, Amelia
Perkins, Ann
Skeats, Arthur
Smith, Melville
Stam, Deirdre
Stuntz, Sharon
Young, Eric

APPENDIX B

MEMBERS DECEASED SINCE NOVEMBER 1968

Bellinger, Louisa
Forbes, Edward W.
Peckett, Godfrey
Phillips, William
Smith, William Stevenson
Welles, C. Bradford

SPECIAL MENTION SHOULD BE MADE OF THE DEATHS OF

Edward W. Forbes
William Stevenson Smith
C. Bradford Welles

APPENDIX C

NEW MEMBERS SINCE NOVEMBER 1968

Anderson, Frances S.
Aull, Gayle A.
Boyd, William R.
Bierbrier, Morris L.
Brown, L. Carl
Callendar, John
Cath, Stanley II.
Cohen, Harvey
Dolan, Sally L.
Greig, Angela
Harik, Ilya
Jamieson, Howard M.
Jeschke, Phyllis
Lapp, Paul W.
Lichtheim, Miriam
Levine, Emanuel
Lombardi, Mario J.
Lorton, David
Magnetti, Rev. Donald L.
McHugh, William P.
Niles, Don William
Poullada, Leon B.
Price, Herschel C.
Robinson, James M.
Saffer, Basil
Schmidt, John
Spalinger, Anthony J.
Van Siclen, Charles C.
Winder, R. Bayly
Winter, Erich
Ziadeh, Farhat

SPECIAL MENTION SHOULD BE MADE OF THREE NEW INSTITUTIONAL MEMBERS

McGill University
Brown University
University of Washington

of
AMERICAN RESEARCH CENTER IN EGYPT, INC.

ARTICLE I

NAME, OBJECT AND POWERS

- Sec. (1) *Name.* The name by which this corporation is known is AMERICAN RESEARCH CENTER IN EGYPT, INC.
- Sec. (2) *Objects.* The objects and purposes for which the corporation is formed are as stated in the Articles of Organization.
- Sec. (3) *Powers.* The corporation shall have all the powers and privileges granted to similar corporations under the General Laws of the Commonwealth of Massachusetts.

ARTICLE II

OFFICES

- Sec. (1) *Principal Office.* The principal office of the corporation shall be in such place in the United States as may be selected by the Board of Governors. Any change of such location shall be subject to ratification by the membership at the next following annual meeting. A resident agent shall be maintained in the Commonwealth of Massachusetts.
- Sec. (2) *Other Offices.* The corporation may also have subsidiary offices at such places in the United States and in foreign countries as the Board of Governors may from time to time designate.

ARTICLE III

MEMBERSHIPS

- Sec. (1) *Classes of Members.* There shall be four (4) classes of members, Individual Members, Research Supporting Members, Institutional Members and Honorary Members, being further described as follows:
- (a) Individual Member — A person who holds a membership in the corporation in his own individual name.
 - (b) Research Supporting Member — An organization which meets those standards of substantial financial support of, and active participation in, the affairs of the corporation, as are set by the Board of Governors for membership as a Research Supporting Member.
 - (c) Institutional Member — An organization interested in the corporation, and qualifying for membership in the corporation under such standards as are set by the Board of Governors for classification as an Institutional Member.
 - (d) Honorary Member — A person who shall be elected as an Honorary Member by the Board of Governors.
- Sec. (2) *Applications.* All individuals or organizations or institutions desiring to become Individual, Research Supporting, or Institutional Members in the corporation shall submit applications in a form to be approved by the Executive Committee.
- * Sec. (3) *Election to Membership.* The Board of Governors shall make all future elections to membership of

organizations or institutions. The Executive Committee shall make all future elections to membership of all individuals, including Honorary Memberships.

Sec. (4) *Resignation of Members.* Any member of any class may resign at any time by written notice directed to the President or Secretary of the corporation. Such resignations shall be effective upon receipt of the said notice. In the event of such resignations, membership dues of members shall not be refunded or, if due but unpaid, abated, but the Board of Governors may, in its absolute discretion, refund or abate on a pro rata basis, the dues of resigning Research Supporting Members.

Sec. (5) *Membership Records.* Complete membership lists and records shall at all times be maintained on a current basis in the principal office of the corporation.

Sec. (6) *Members Entitled to By-Laws.* Any member shall, upon written request to the Secretary, be entitled to receive a copy of the by-laws of the corporation.

Sec. (7) *Expulsion, Suspension or Reinstatement of Members.* The membership of any member of any class may be terminated, or suspended, or reinstated at any time by the Board of Governors with or without cause or for any reason which the Board shall, in its absolute discretion, consider to be sufficient. In the event of expulsion or suspension of a Research Supporting Member, the Board of Governors may, in its absolute discretion, refund or abate, on a pro rata basis, the dues of such member. There shall be no abatements or refunds in the case of expulsion or suspension of members other than Research Supporting Members.

Sec. (8) *Membership Dues.* All members, except Honorary Members shall pay such annual dues as the Board of Governors shall from time to time determine. The Board shall designate a separate schedule of annual dues for each membership class. The Board of Governors may on the recommendation of the Secretary drop from membership members who are in arrears in the matter of dues.

Sec. (9) *Voting Rights.* Only Individual Members shall be entitled to any vote at annual or special meetings of members. Each such Individual Member shall be entitled to cast one vote. Research Supporting, Institutional and Honorary Members shall not be entitled to vote at any meetings of members.

ARTICLE IV

MEETINGS OF MEMBERS

- Sec. (1) *Place of Meetings.* Meetings of members shall be at such place within the United States or Canada as the Board of Governors may determine to be appropriate. Meetings of members may be authorized at any other place by the membership at large.
- Sec. (2) *Notice of Meetings.* Written or printed notice of each annual or special meeting of members, stating the place, day and hour thereof, shall be given by the Secretary to each member of all classes at least twenty-one (21) days before the meeting by mailing such notice, postage prepaid, addressed to each member at his address as it appears upon the membership records of the corporation. It shall not be requisite to the validity of any meet-

ing of members that notice thereof shall have been given to any member so entitled who attends in person or by proxy, or waives notice thereof in writing filed with the records of the meeting, either before or after the holding thereof.

Sec. (3) *Quorum.* At any meeting of members, the presence either in person or by proxy of twenty (20%) per cent of the Individual Members shall constitute a quorum for the transaction of business, and the act of a majority of Individual Members present in person or by proxy at any meeting at which there is a quorum shall be the act of the full membership, except as may be otherwise specifically provided by statute or these by-laws. In the absence of a quorum, or when a quorum is present, a meeting may be adjourned by vote of a majority of the Individual Members present in person or by proxy, without notice other than by announcement at the meeting and without further notice to any absent member.

Sec. (4) *Voting.* At every meeting of members, each Individual Member shall be entitled to vote in person, or by proxy duly appointed by instrument in writing, which is subscribed by such Individual Member and which bears a date not more than six months prior to the meeting at which it is used.

Sec. (5) *Annual Meeting.* The corporation shall hold annually a regular meeting of its members for the election of those members of the Board of Governors not appointed by Research Supporting Members, and for the transaction of general business, in NOVEMBER of each year. The members of the Board of Governors so elected shall be elected from among the Individual Members of the corporation. In case the annual meeting for any year shall not be duly called or held, the Board of Governors or the President shall cause a special meeting to be held as soon thereafter as possible in lieu of and for the purpose of such annual meeting, and all proceedings at such special meeting shall have the same force and effect as if taken at the regular annual meeting.

Sec. (6) *Special Meeting.* At any time in the interval between annual meetings, special meetings of the members shall be called by the Secretary or in the case of the death, absence, incapacity, disability or refusal of the Secretary, by such person as the Executive Committee may appoint, whenever requested to do so by the President, or by a majority of the Executive Committee, or by a majority of twenty (20%) per cent or more of the then Individual Members. Such written application shall state the time and purpose of any such meeting.

Sec. (7) *Nominations from the Floor.* Individual Members may offer nominations from the floor at the annual meeting of the corporation for the election of those members of the Board of Governors who are to be elected by the Individual Members, provided that a notice signed by not less than seven (7) Individual Members, giving the names of such nominees, is first filed with the Secretary not later than seven (7) days prior to the date of the annual meeting.

ARTICLE V

BOARD OF GOVERNORS

Sec. (1) *General Powers.* Subject to the limitations contained in these by-laws, or in any statute, as to action to be authorized, approved or undertaken by the corporation, all corporate powers shall be exercised

by or under authority of, and the business and affairs of the corporation shall be controlled by, the Board of Governors.

Sec. (2) *Number of the Board of Governors.* The number of members of the Board of Governors shall be equal to two (2) times the number of Research Supporting Members, plus one; but in no event shall there at any time be fewer than twenty-one (21) members of the Board, unless a vacancy occurs by reason of death or resignation during the interim period between annual meetings of members, and said vacancy remains unfilled.

* Sec. (3) *Research Supporting Members to Have Places on the Board of Governors.* Each Research Supporting Member shall be entitled to appoint one member of the Board of Governors. The appropriate administrative officer of each organization which is a Research Supporting Member shall annually at the annual meeting of members, appoint or reappoint a person to the Board of Governors to serve as a member of the Board of Governors.

* Sec. (3) *Other Members of the Board of Governors.* The Individual Members of the corporation shall, at the annual meeting of members, elect from within their own number the following members of the Board of Governors:

A number of members equivalent to the number of Research Supporting Members of the corporation plus one, except that in the event that the said number of Research Supporting Members is fewer than ten (10), then the Individual Members shall elect a sufficient number of persons to the Board of Governors to bring the total number of persons on the Board to twenty-one (21).

* Sec. (5) *Term of Members of Board of Governors.* Those members of the Board of Governors who are elected by the members of the corporation at the annual meeting shall hold office until the next annual meeting of members of the corporation, and thereafter until their successors are designated and elected. Any member of the Board of Governors appointed by a Research Supporting Member shall hold office until the membership of the Research Supporting Member is terminated or until the Research Supporting Member gives notice to the corporation at the annual meeting of members of appointment of a person other than its then appointee to the Board of Governors, whichever occurs sooner. In the event of any vacancy on the Board, through death, resignation, or by any other cause, the remaining members shall constitute the full Board of Governors until such vacancy is filled by appointment or by the election of a successor.

Sec. (6) *Status of Members of Board of Governors.* No person may at the same time hold office as a member of the Board of Governors by virtue of both an appointment by a Research Supporting Member and election by members of the corporation at the annual meeting. Persons appointed by Research Supporting Members to the Board of Governors need not be Individual Members of the corporation. Each member of the Board shall have one vote and there shall be no distinctions of any kind, insofar as voting power is concerned, or the operations of the Board, or in any other respect, between members of the Board of Gover-

have been appointed or elected, except as may be specified elsewhere in these by-laws.

Sec. (7) Board of Governors to Elect Officers. The President and Vice-President shall be elected by the Board of Governors from within their own number at the meeting of the Board of Governors following the annual meeting of the members each year. The Board of Governors shall also elect a Secretary and Treasurer and an Assistant Treasurer, and such other subordinate officers as they may deem advisable, from within or without their number. All of said officers shall hold their respective offices until the first meeting of the Board of Governors following the annual meeting of members and thereafter until their successors are elected and qualify, subject, however, to resignation or removal.

Sec. (8) Board of Governors to Approve Annual Budget. The President shall prepare, not later than May 15th in any year, a budget showing anticipated receipts and expenditures for the fiscal year next beginning. The said budget shall be presented to the Board of Governors for its rejection, alteration or ratification at the first meeting of the Board following the said May 15th date, whether said meeting be an annual or special meeting. In the event the Board of Governors fails to meet within the fourteen (14) day period following the said May 15th date, the said budget shall be presented to the Executive Committee for its consideration and action. The action taken on the budget by the Executive Committee shall be considered by the Board of Governors at the meeting of the Board next following the said budget meeting of the Executive Committee, and the Board may reject, alter or ratify the said action. However, any commitment or expenditure by the corporation pursuant to said budget as approved by the Executive Committee prior to ratification by the Board of Governors shall be deemed to be a proper commitment or expenditure of the corporation whether or not said commitment or expenditure is later ratified by the Board of Governors.

Sec. (9) Board of Governors to Elect Executive Committee. The Executive Committee shall be elected annually at the annual meeting of the Board of Governors to hold office until the next annual meeting of the Board of Governors following, or until successors are duly designated or elected, and shall consist of the President, the Vice-President and five additional persons chosen from within their own number by the Board. The limitation on the number of members of the Executive Committee to five shall come into effect with the annual meeting in 1970.

Sec. (10) Meetings of Board of Governors. An annual meeting of the Board of Governors shall be held at the same place and immediately after adjournment of the annual meeting of the members, for which meeting no notice shall be required to be given to any member of the Board of Governors, nor shall any notice be required to be given of any adjournment thereof. Special meetings of the Board of Governors, including an annual budgetary meeting in May, may be held at the call of the President, Treasurer, or seven (7) or more members of the Board of Governors by a written notice thereof signed by him or them or the Secretary and sent by mail to each member of the Board of Governors at his last known place

of business or residence at least ten (10) days before the meeting, or given to him personally in time to attend.

Sec. (11) Quorum. At any meeting of the Board of Governors, the presence of a majority of the Board in person or by proxy shall constitute a quorum for transaction of business. At all meetings of the Board of Governors each Member of the Board of Governors shall be entitled to cast one vote in person or by proxy. When a quorum is present in person or by proxy at any meeting, a majority of the members of the Board of Governors present or represented by proxy shall decide any questions brought before the meeting.

ARTICLE VI

EXECUTIVE COMMITTEE

Sec. (1) General Powers. The Executive Committee shall, during the intervals between the meetings of the Board of Governors, possess, and may exercise, all of the powers of the Board of Governors in the management of the business and affairs of the corporation, except as to such matters which are expressly reserved to the Board of Governors by its own resolutions or by these by-laws.

Sec. (2) Specific Powers. In the absence of any reservations by the Board of Governors, the Executive Committee or its nominee shall:

- (a) Negotiate and approve the terms of all contracts and agreements between the corporation and the United States Government, or any other governmental authorities or agencies thereof.
- (b) Appoint the principal administrative person in each office of the corporation to carry out the directives of the officers of the corporation.
- (c) Fix the salaries, duties and other terms of employment of the said principal administrative persons.

Sec. (3) Reporting to the Board of Governors. All action by the Executive Committee shall be reported to the Board of Governors at its meeting next succeeding such action and shall be subject to ratification, revision and alteration by the Board of Governors; provided that the rights of third persons shall not be affected by any such revision or alteration. The Executive Committee shall keep full and fair records and accounts of its proceedings and transactions.

Sec. (4) Resignations and Vacancies. The Executive Committee shall accept resignations of members of the Board of Governors, members of the Executive Committee, and officers, and in case of any vacancy through death, resignation or any other cause whatsoever, may fill such vacancy, including vacancies on the Board of Governors (subject to the exception noted hereafter) for the unexpired portion of the term and until the election and qualification of a successor; but if it does not fill any such vacancy or vacancies in the Executive Committee the remaining members shall constitute the full Executive Committee until such vacancy is filled. Notwithstanding any other provision herein contained, however, in the event a vacancy occurs on the Board of Governors by reason of the death or resignation of a member of the Board appointed by a Research Supporting

shall, if it then still holds membership in the corporation, appoint a person of its own choosing to membership on the Board to fill the said vacancy.

Sec. (5) *Rules and Regulations.* The Executive Committee may, subject to rejection, alteration or ratification by the Board of Governors, make such rules and regulations not inconsistent with these by-laws or the laws of the United States of America, or the Commonwealth of Massachusetts, or any other State, Territory, dependency, or foreign country in which the corporation may be doing business, as it deems necessary or proper for the guidance of the officers, employees, and management of the affairs of the corporation.

Sec. (6) *Meetings of Executive Committee.* A legal meeting of the Executive Committee may be held at any time by order of the President, and shall be called by the Secretary upon request of any member of the Executive Committee in the same manner as prescribed for the special meeting of the Board of Governors in the by-laws. A legal meeting of the Executive Committee may be held at any time without notice when all Executive Committee members are present. Any member may waive notice of any meeting in writing, either before or after the meeting. Any meeting, the records of which are approved in writing by all of the members of the Executive Committee, shall be a valid meeting, whether a quorum was present or not. Meetings of the Executive Committee may be held outside of the Commonwealth of Massachusetts.

Sec. (7) *Quorum.* A majority of the Executive Committee present in person shall constitute a quorum at any annual, regular or special meeting. Each member of the Executive Committee shall be entitled to cast one vote. When a quorum is present in person at any meeting, a majority of the members of the Executive Committee present shall decide questions brought before the meeting.

ARTICLE VII

OFFICERS

Sec. (1) *Officers.* The officers of the corporation shall be a President, a Vice President, a Treasurer, a Secretary and an Assistant Treasurer who shall also serve as Director of the overseas headquarters and such other subordinate or assistant officers as the Board of Governors shall from time to time appoint. Two or more offices may be held by the same person. Each officer shall hold his office for a term of one year or until his successor shall have been duly chosen and qualified, or until his death, or until he shall resign or shall have been removed in the manner hereinafter provided.

* Sec. (2) *Removal.* Any officer except such officers as are elected by the Individual Members may be removed, either with or without cause, by the vote of a majority of the then entire Board of Governors, at any meeting of the Board. The Individual Members may, at any special meeting, with or without cause, remove the Treasurer or the Secretary of the corporation.

Sec. (3) *President.* The President shall be the chief executive officer of the corporation and shall have general supervision over the business of the corporation, over its several officers and over its administrative personnel and other employees, sub-

and the Executive Committee. He shall, when present, preside at all meetings of the members, the Board of Governors and the Executive Committee. He may sign and execute, in the name of the corporation all authorized deeds, mortgages, bonds, contracts, or other instruments, except in cases in which the signing and execution thereof shall have been expressly delegated to some other officer or agent of the corporation; he shall annually prepare a full and true statement of the affairs of the corporation, which he shall submit at the annual meeting of the corporation; and, in general, the President shall perform all duties incident to the office of the President of the corporation, and such other duties as from time to time may be assigned to him by the Board of Governors or the Executive Committee. He shall, whenever it may be necessary in his opinion, prescribe the duties for officers and employees of the corporation whose duties are not otherwise defined.

Sec. (4) *Vice-President.* The Vice-President shall preside at all meetings of members of the Board of Governors and the Executive Committee in the absence of the President, and shall perform such other duties as may from time to time be assigned to him by the Board of Governors or the Executive Committee.

Sec. (5) *Treasurer.* The Treasurer shall give a bond for the faithful discharge of his duties if and when required by the Board of Governors. The Treasurer shall have charge of the corporate seal of the corporation, shall deposit all funds of the company in such depositories as may be selected by the Executive Committee, pay all its bills, and collect all monies due to the company. He shall keep or cause to be kept full and accurate books of account containing a record of all purchases and of all monies received and paid out for the corporation, which financial books and accounts shall be constantly open to the inspection of the officers of the corporation and the members of the Board of Governors, and the Executive Committee, and shall render to the Board of Governors at least once in each year a full and clear statement showing the assets and liabilities of the corporation and the results of its operations for the year last ended; and, in general, shall perform all the duties incident to the office of a Treasurer of the corporation, and such other duties as may be assigned to him by the Board of Governors, Executive Committee, or the President.

Sec. (6) *Assistant Treasurer.* The Board of Governors shall elect an Assistant Treasurer. The Assistant Treasurer shall also be the Director of the overseas headquarters and shall have such authority and perform such duties as the Board of Governors or Executive Committee or President may prescribe. He shall give a bond for the faithful discharge of his duties if and when required by the Board of Governors.

Sec. (7) *Secretary.* The Secretary shall attend all meetings of the members, the Board of Governors, and the Executive Committee, and shall keep full, true and accurate records of all business transacted at such meetings, and shall discharge all other duties properly appertaining to this office and which may be attached thereto by the Board of Governors or Executive Committee. He shall have the

custody of the minutes and membership record books of the corporation. He shall give notice of all meetings of the members, the Board of Governors and the Executive Committee in the manner prescribed by these by-laws. The Secretary shall be duly sworn to the faithful and impartial discharge of his duties, and in the absence, incapacity, or inability of the Secretary to act at any meeting, a Temporary Secretary who shall also be duly sworn, shall be chosen by the officer presiding at such meeting.

- Sec. (8) *Salaries.* The salaries, if any, of officers shall be fixed by the Board of Governors and the fact that any officer is a member of the Board of Governors shall not preclude him from receiving a salary or from voting on the resolution providing for the same.

ARTICLE VIII

STANDING COMMITTEES

- Sec. (1) *Appointment and Members.* Appointment of persons to serve on Standing Committees shall be by the President from the Individual Members of the corporation. Committee membership shall be co-terminous with the term of office of the President. The President shall ex officio be a member of the Committee. The chairman of each Committee shall be designated by the President. In the event of the resignation, death or disqualification of any member of the Committee, the President shall appoint a successor to serve for the unexpired term. Each Standing Committee shall consist of not more than five nor less than three persons.
- Sec. (2) *Duties of Standing Committees.* Standing Committees shall have such duties and perform such functions as the President shall determine.
- Sec. (3) *Designation of Standing Committees.* There shall be Standing Committees on:
- Fellowships and Grants
 - Memberships and Contributions
 - Publications
 - Archaeological and Research Expeditions
- Sec. (4) *Other Committees.* The President may appoint such other committees as the business of the corporation may require.
- Sec. (5) *Records and Reports.* Each committee shall elect its own Secretary who shall keep regular minutes of the transactions of its meetings, and shall cause them to be recorded in books kept for that purpose in the office of the corporation, and the said minutes shall be reported to the Executive Committee at its next meeting.

ARTICLE IX

NOMINATING COMMITTEE

- Sec. (1) *Appointment and Function.* At least two months prior to the annual meeting of members, the President shall appoint a Nominating Committee of three Individual Members of the corporation

who shall present in writing at least one month prior to the annual meeting of the members the name of a candidate for each office to be filled by election by the members. The nominations as presented by the Nominating Committee shall be sent to the members of the corporation with the notice of the annual meeting. The Nominating Committee shall also present to the Board of Governors for consideration at its annual meeting nominations for the offices of President, Vice-President, Secretary, Treasurer, Assistant Treasurer and such subordinate officers as they deem advisable and nominations for those members of the Board of Governors to be elected to the Executive Committee.

ARTICLE X

SUNDRY PROVISIONS

- Sec. (1) *Signing of Checks.* The drawing of checks, acceptance of drafts and bills of exchange, and the signing of negotiable instruments shall be by the Treasurer, or by such other person or persons, and in such manner as may be authorized by the Executive Committee.
- Sec. (2) *Fiscal Year.* The fiscal year of the corporation shall begin on the first day of July and end on the last day of June, unless otherwise provided by the Board of Governors.
- Sec. (3) *Seal.* The corporate seal of the corporation shall bear its name, the year of incorporation, and the words, "Incorporated, Massachusetts," and such other device or inscription as the Board of Governors may determine.
- Sec. (4) *Bonds.* The Board of Governors or the Executive Committee may require any officer, agent, or employee of the corporation to give a bond to the corporation, conditioned upon the faithful discharge of his duties, with one or more sureties, and in such amount as may be satisfactory to the Board of Governors or the Executive Committee.
- Sec. (5) *Amendments to By-Laws.* These by-laws may be amended, altered or repealed, or new by-laws adopted, by the vote of a majority of the Individual Members represented in person or by proxy at any annual meeting or special meeting of the members at which a quorum is present, provided notice of such proposed amendment, alteration, repeal or adoption of new by-laws is contained in the call of said meeting.
- Sec. (6) *Expenses.* The Board of Governors or the Executive Committee may, in their discretion, authorize the payment of such expenses as may be incurred by officers, members of the Board of Governors or committee members in carrying on the business of the corporation.
- Sec. (7) *Resignation.* Any officer, or member of the Board of Governors or Executive Committee, may resign at any time by giving written notice to the President or Secretary of the corporation, and the acceptance of such resignation shall not be necessary to make it effective.

AMENDMENTS

November 14, 1970:

Article V, Section 3 to read:

Research Supporting Members to Have Places on the Board of Governors. Each Research Supporting Member shall be entitled to representation on the Board of Governors. Upon its election to membership the appropriate administrative officer of the Research Supporting Member may inform the Secretary of the ARCE of the name of its representative appointed to serve on the Board of Governors during its membership or until the Secretary of the ARCE is notified of his replacement. To insure the desired regular participation of each Research Supporting Member in each meeting of the Board of Governors, any such member may, when use of the proxy procedure provided in Section 11 of this article is deemed inadequate, inform the Secretary of ARCE, through its appropriate administrative officer, of its appointment of a temporary or substitute representative to any specific meeting of the Board of Governors.

November 4, 1972:

Article III, Section 3 to read:

Election to Membership. The Board of Governors shall make all future elections to membership of organizations, institutions, individual and honorary members.

Article V, the section entitled "Other Members of the Board of Governors" shall be numbered Section 4.

Article V, Section 5 to read:

Term of Members of Board of Governors. Those members of the Board of Governors who are elected by the members of the corporation at the annual meeting shall hold office until the next annual meeting of members of the corporation, and thereafter until their successors are designated and elected. Any member of the Board of Governors appointed by a Research Supporting Member shall hold office until the membership of the Research Supporting Member is terminated or until the Research Supporting Member gives notice to the Secretary of the corporation as provided in Article V, Section 3 of appointment of a person other than its then appointee to the Board of Governors, whichever occurs sooner. In the event of any vacancy on the Board, through death, resignation, or by any other cause, the remaining members shall constitute the full Board of Governors until such vacancy is filled by appointment or by the election of a successor.

Article VII, Section 2 to read:

Removal. Any officer may be removed, either with or without cause, by the vote of a majority of the entire Board of Governors, at any meeting of the Board.